

REQUIREMENTS-BASED SURVEILLANCE AND MAINTENANCE REVIEW PROCESS

-Following a path to mission success -

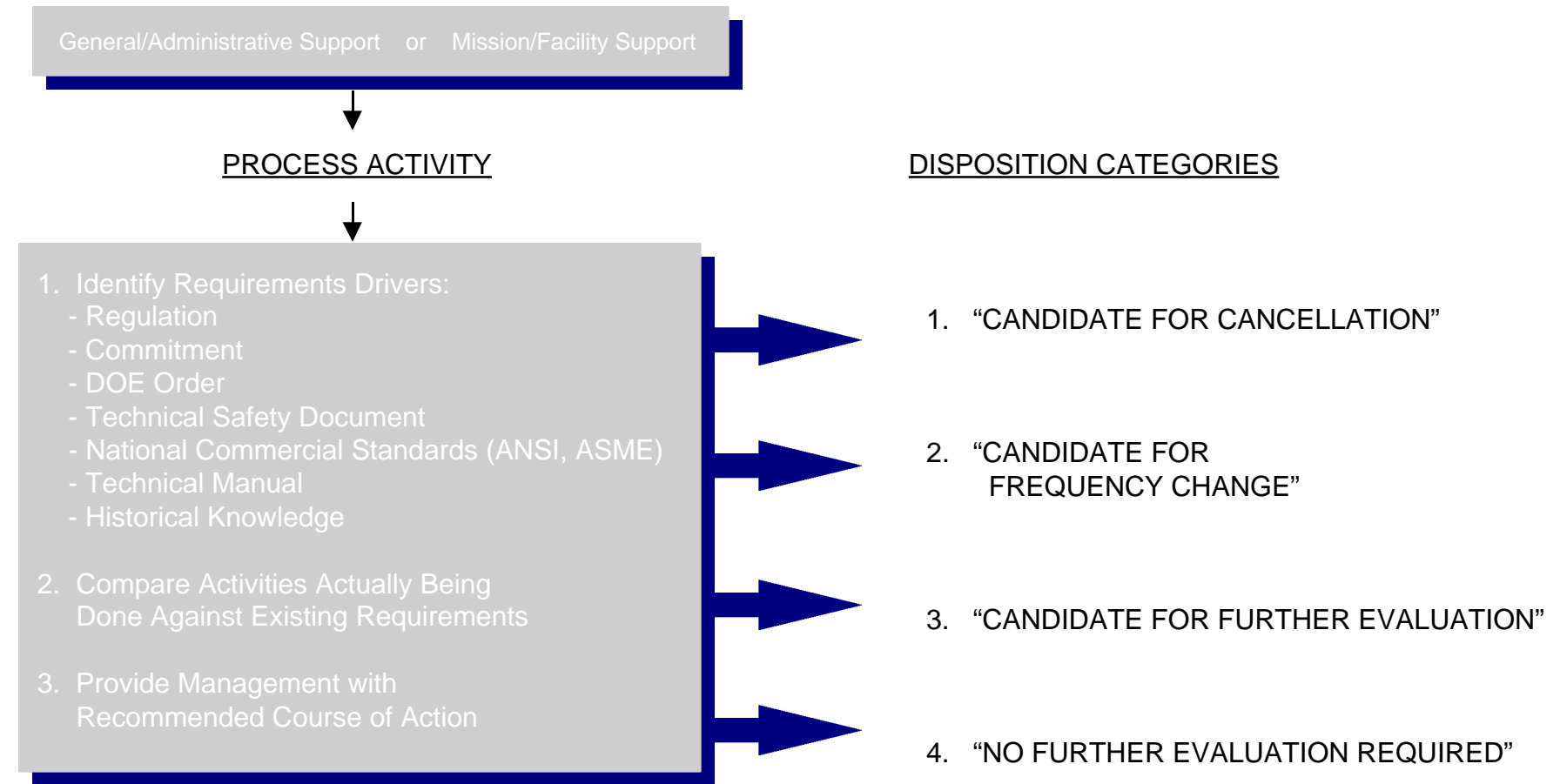
Process Description

A reproducible management evaluation process for comparing surveillance and maintenance activities against requirements, leading to the potential for reallocation of labor hours to perform mission-direct work

Process Benefits

- Reallocation of S&M resources to mission-direct work in support of efficiency goals
- Assistance to sites in meeting support cost targets
- Identification of specific measures to be taken to reallocate S&M resources
- Data base of regulatory drivers; basis to assess drivers' impacts on activity costs
- Input to additional opportunities for enhanced efficiency/effectiveness, including:
 - > benchmarking
 - > process reengineering
 - > work smart standards

Basic Process Flow Diagram



Disposition Category Descriptions

CATEGORY	DISPOSITION CATEGORY	CATEGORY DISTINGUISHING CHARACTERISTICS
1	Candidate for Cancellation	<ul style="list-style-type: none"> • No driver can be found for the activity • Facility conditions have changed making activity unnecessary • Current or future mission of facility makes activity unnecessary • <u>Strong criteria exist to support evaluation</u>
2	Candidate for Frequency Change	<ul style="list-style-type: none"> • Activity is being performed more frequently than specified by the driver • Strong criteria exist to support evaluation
3	Candidate for Further Evaluation	<ul style="list-style-type: none"> • Limited information was available on actual driver • Driver may not be appropriate for activity • Undeterminate criteria exist to support evaluation • Regulatory relief could or should be sought for the activity • Driver interpretation may be incorrect
4	No Further Evaluation Required	<ul style="list-style-type: none"> • Activity scope and frequency was found to be valid

Information Gained From the RBSM Process

- Identification of the actual requirements that drive facility activities
- Applicability of requirements to current facility/system conditions (e.g., operating or shutdown)
- Identification of opportunities for regulatory relief
- Earmarking of recent or pending requirements changes
- Assessment of the extent to which activities are performed based on historical patterns, not requirements or best practices

Other Uses For RBSM Information

- Support achieving cost reduction targets
- Benchmarking
- Management performance reviews
- Process reengineering
- Review of mission-direct activities
- Meeting and validating performance milestones

B771 Pilot Process Results

DISPOSITION CATEGORY	# OF ACTIVITIES	ESTIMATED POTENTIAL REALLOCABLE RESOURCE SAVINGS (M-HRS/YR)
Candidate for Cancellation	13	4,814 ⁽²⁾
Candidate for Deferral or Frequency Change	12	6,445
Candidate for Further Evaluation	30	14,816
No Further Evaluation Required	71	N/A
Total Activities Reviewed	126 ⁽¹⁾	26,075 M-Hrs/Yr ⁽²⁾

1. Activities evaluated represent approximately \$4.5M in S&M costs at the facility.

2. Potential re-allocable labor hours (4,814 M-Hrs/Yr - 26,075 M-Hrs/Yr) represent about (\$250K - \$1.3M) of the workscope evaluated.

B771 Pilot Process Results

ORGANIZATION	PRE REVIEW M-HRS/YR	POST REVIEW M-HRS/YR	DELTA REDUCTION IN M-HRS/YR (%)
Radiation Protection	15,196 ⁽¹⁾	3,453 ⁽¹⁾	77% ⁽¹⁾
Environmental Compliance	9,362	3,467	63%
Industrial Hygiene	1,912	949	50%
Maintenance, Test and Calibration Equipment	1,240	1,063	14%
Production Operations	10,916	3,619	67%
Fire Systems	2,193	2,193	0
Utilities	29,011	29,011	0
TOTAL - OVERALL	69,830 ⁽²⁾	43,755	37%

(1) Because of the nature of the work, it was not possible to assign M-Hrs/Yr to approximately forty-eight percent (48%) of the Rad Protection activities.

(2) Man-Hours represent only the hours associated with the 126 activities evaluated under the review process not all hours at the facility.

RBSM Process Results

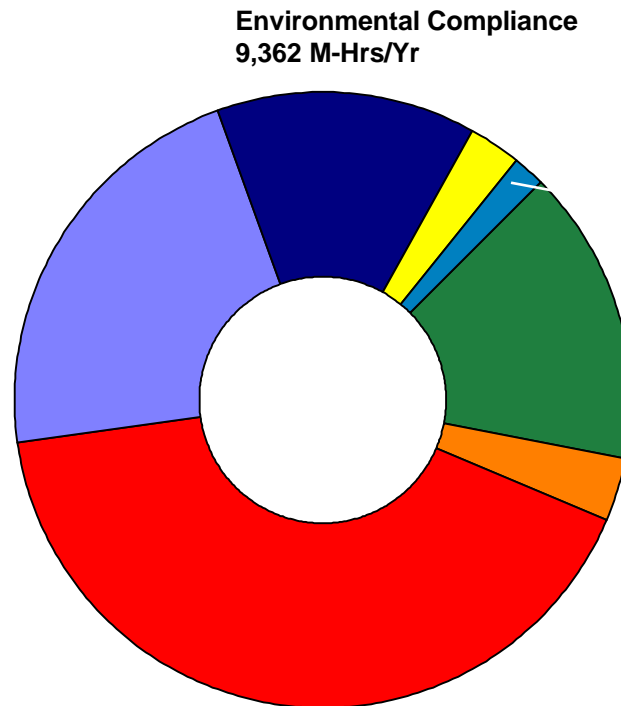
- RBSM can provide a systematic, bottom up analysis of S&M activities at a facility.
 - > The systematic approach used to analyze S&M activities can be applied to any activity that is tied to a driver.
- The RBSM process uncovered additional opportunities to increase operational efficiency and effectiveness outside of the RBSM process. (e.g., training, waste storage, and monitoring of tanks)
- RBSM complements and supports other operational improvement methodologies employed at or planned for the sites, such as benchmarking and process reengineering.

RESULTS OF THE RFETS B771 RBSM REVIEW

Conducted April 21-24, 1996

B771 Pilot Process Results

Distribution of Activities Reviewed



M-Hrs/Yr shown represent total M-Hrs/Yr spent on all activities reviewed in that area.

126 Activities Reviewed

B771 Pilot Process Results

- Estimated annual cost reductions from surveillance and maintenance activities reviewed:

\$250K - \$1.3 million.

- Net present value of pilot RBSM review:

\$1.33 - \$7.1 million.

Calculation based upon: (projected annual savings over 9 yrs discounted 7%)

- \$200,000 investment in pilot review
- \$250K - \$1.3 million savings on S&M: 1998 - 2006
- 7% discount rate

- Pay back period for investment in pilot RBSM review:

2 months - 9 months.

Management Use

- Summarization of data (as shown below) assists management with focusing on specific activities that will allow a reallocation of M-Hrs/Yr from support activities to mission-direct work

RECOMMENDED DISPOSITION	ACTIVITIES (#/%)	ANNUAL COSTS (\$/%)	ESTIMATED REDUCTION IN (M-Hrs/Yr)
Candidate for Cancellation	24/12%	\$1M/3%	2,345
Candidate for Frequency Change	65/33%	\$12M/30%	5,562
Candidate for Further Evaluation	70/35%	\$17M/42%	10,675
No Further Evaluation Required	40/20%	\$10M/25%	0

- Rigor of the review process suggests that activities dispositioned to “Candidate for Cancellation” be pursued first, activities dispositioned as “Candidate for Frequency Change” be looked at second, and finally activities that fall to “Candidate for Further Evaluation” be evaluated last.